

THE SPARK GAP

OFFICIAL NEWSLETTER OF THE

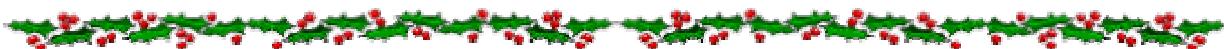
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MID-STATE AMATEUR RADIO CLUB

December 2003



HAPPY HOLIDAYS



FEMA SAYS BPL WILL "SEVERELY IMPAIR" ESSENTIAL HF OPERATIONS

A proverbial monkey wrench in the works for BPL? Expressing "grave concerns" about likely interference from unlicensed Broadband over Power Line (BPL) systems, the Federal Emergency Management Agency (FEMA) told the FCC that BPL could "severely impair FEMA's mission-essential HF radio operations in areas serviced by BPL technology." FEMA responded December 4 to last April's FCC BPL Notice of Inquiry, ET Docket 03-104. Now part of the Department of Homeland Security--the agency said its primary worry is BPL's potential impact on the FEMA National Radio System (FNARS) on HF. FNARS is FEMA's primary command and control backup medium under the Federal Response Plan. "FEMA has concluded that introduction of unwanted interference from the implementation of BPL technology into the high frequency radio spectrum will result in significant detriment to the operation of FEMA radio systems such as FNARS,"

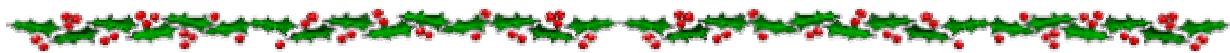
FEMA asserted. "FNARS radio operators normally conduct communications with signals that are barely above the ambient noise levels." FNARS HF stations, FEMA said, typically are in residential areas of the sort that BPL might serve. As part of the Department of Homeland Security, FEMA's perspectives on BPL could carry substantial weight at the FCC, which may issue a Notice of Proposed Rule Making as early as February.

The FCC's BPL Notice of Inquiry has attracted more than 5100 comments--many of them from the amateur community. FEMA said BPL also could render useless such "essential communications services" as the Radio Amateur Civil Emergency Service (RACES), the Military Affiliate Radio System (MARS) and the Civil Air Patrol. FEMA and ARRL last year signed a Memorandum of Understanding that focuses on how Amateur Radio may coordinate with the agency in disasters and emergencies. Calling the HF spectrum "an invaluable and irreplaceable public safety resource," FEMA said there's no current alternative to HF in terms of meeting national security and emergency preparedness requirements at the national, state and local levels. The agency advised the FCC to beef up its Part 15 rules to ensure no increase in interference levels to existing FCC or NTIA-licensed communication systems. Otherwise, FEMA predicted, "any noise increase inevitably would diminish the ability to maintain essential communications" and would "directly impair the safety of life and property."



Likewise, FEMA pointed out, amateur HF transmitters could possibly interfere with and interrupt BPL service, leading consumers not familiar with Part 15 to blame licensed radio services. Concluded FEMA: "The purported benefits of BPL in terms of expanded services in certain communications sectors do not appear to outweigh the benefit to the overall public of HF radio capability as presently used by government, broadcasting and public safety users." Additional information about BPL and Amateur Radio is on the ARRL Web site, www.arrl.org/tis/info/html/plc/.

To support the League's efforts in this area, visit the ARRL's secure BPL Web site, <https://www.arrl.org/forms/development/donations/bpl/>.



FCC ANNOUNCES UNIVERSAL LICENSING SYSTEM MAKEOVER

At week's end, the FCC was preparing to put a new face on the Universal Licensing System (ULS) <<http://wireless.fcc.gov/uls>>, which includes the Amateur Service. The Commission was set to unveil the new on-line ULS filing interface December 14. To implement the changes, the ULS on-line filing system will be down from 12 AM EST Saturday, December 13, until 10 AM EST Sunday, December 14. Among other features, the ULS makeover will include easier-to-read on-screen forms that guide users through filing and simplify such routine tasks as applying for license renewal, address change or vanity call sign.

The FCC says the introduction of its new system, called "ULS License Manager," concludes phase one of an ongoing ULS overhaul by the Wireless Telecommunications Bureau. ULS License Manager will be compatible with most, if not all, major Web browsers and computer platforms and no longer will require downloading Java and Java Script files. Screens also will be compliant with Web screen-to-voice reader software.

An FCC staffer involved with implementing ULS License Manager notes that all features may not be in place when the system debuts. The ULS will require all filers to log into the system using an FCC Registration Number (FRN) and Commission Registration System (CORES) password. The FCC said it would no longer accept a Taxpayer Identification Number (TIN)--a Social Security Number for most individuals--for log-in purposes. Once the new system is up and running, all licenses and applications in the ULS database will be converted to the new ULS License Manager filing environment.

There's also a new paper version of FCC Form 605, dated December 2003. One change is that Form 605 no longer requests a date of birth and will only accept an FRN and CORES password. There are no Amateur Service-related changes to any Form 605 schedules. The FCC says Amateur Service applicants may continue to use the March 2001 (or later) edition of Form 605, although it encourages use of the newest version. The new FCC Form 605 now is available via the FCC Web site <<http://www.fcc.gov/Forms/Form605/605.html>>.

To assist with any ULS issues after the changeover, the Technical Support Hotline staff will be available Sunday, December 14, from 10 AM until 6 PM EST. Normal hours are weekdays (except holidays) from 8 AM until 6 PM Eastern Time. Technical Support is available via the FCC Web site <<http://esupport.fcc.gov>> or telephone 877-480-3201 (TTY 202-414-1255). ULS licensing support and forms information is available weekdays (except holidays) from 8 AM until 5:30 PM Eastern Time via e-mail <ulshelp@fcc.gov> or telephone 888-CALLFCC (225-5322), Option 2 (users also may call 717-338-2888)

SUPPER CLUB SCHEDULE

12-18-03 FLYING-J BUFFET WHITELAND ROAD & I-65 SOUTH 6:PM

12-25-03 NO SUPPER CLUB CHRISTMAS DAY.

1-1-04 NO METTING NEWYEARS DAY

1-8-04 SUNSHINE CAFE ST. RD. 135 SOUTH ACROSS FROM MEIJER"S 6:PM

1-15-04 EL-NINO MEXICAN 2797 N. MORTON [U.S.31 SOUTH] FRANKLIN IN.6:PM

1-22-04 MCL-CAFETERIA TARGET MALL SUMNER & SOUTHEAST ST. INDIANAPOLIS IN.
6:PM

1-29-04 GRAY'S MOORESVILLE IN. 1-MI WEST OF ST. RD 67 & ST. RD. 144 6:PM



W9BXP – Bonnie Halcomb's shack.

Form Letter -- Fight BPL!

[Mark D. Braunstein \(WA4KZ\)](#) on December 9, 2003

BPL Letter

Posted to eHam.net

[Feel free to use this letter in its entirety or in part when writing your Congressional representatives]

[Return Address]

[Congressional Representative's Address]

[Date]

Dear [Congressional Member]:

I am writing you, as a concerned amateur radio operator, to alert you to decisions being made by the FCC that may have far reaching implications for the amateur radio service, as well as all other licensed radio services in this country.

The FCC is currently promoting, with insufficient examination, an unlicensed broadband Internet technology known as Broadband over Power Line (BPL). BPL, however, is proving to be a serious threat to the amateur radio service, and a point of concern for other licensed radio services operating in the High Frequency (HF) spectrum.

Amateur radio can no longer be considered a "quaint" hobby with radio amateurs sending Morse code to other radio amateurs across the world. Post-9/11, radio amateurs are increasingly being viewed as part of our emergency communications infrastructure. As such, they are being looked upon as an integral part of the "first responder" apparatus promoted under the Homeland Security initiative. Radio amateurs provided assistance during recent disasters such as hurricane Isabel and the fires in southern California. They provided crucial assistance during the space shuttle Columbia recovery effort. They also provided communications after the World Trade Center attacks when cell phones and other municipal services were disrupted and overloaded.

While radio amateurs and other public services frequently use Very High Frequency (VHF) and Ultra High Frequency (UHF) communications in emergencies, HF communications remains an important component of the emergency communications network. HF communications provides long-range/medium-range operational capabilities, allowing communications to occur when electrical power and radio towers are disrupted or disabled. Radio amateurs can operate HF communications equipment in a "stand alone" arrangement, either from fixed or mobile stations. When operating from vehicles, they can provide wide-range communications without relying on other infrastructure. Trained volunteers that routinely practice emergency message traffic handling are also able to relay voice and data messages during a crisis.

Radio amateurs have also been at the vanguard of technological advances in HF communications. With as little as 5 watts of power and a laptop computer, radio amateurs are able to send and receive digital messages in a mobile setting. They also use HF communications to communicate with satellites built by other dedicated radio amateurs. In short, HF communications provides a place for many new ideas to be developed and serves as an important training ground for furthering educational opportunities in wireless technology.

BPL, however, threatens HF communications for all radio amateurs, as well as short-wave listeners, radio astronomers and some state and local government agencies. It even threatens to interfere with the U.S. Government time and frequency standard signals sent by WWV, the HF radio station operated by NIST in Boulder, Colorado.



BPL interference also cuts both ways. Just as BPL has been shown to produce interference to radio amateurs operating in the HF spectrum, BPL has been shown to be susceptible to interference from radio power levels of up to 1500 watts in the HF spectrum. Informal tests conducted by radio amateurs in nearby Washington, DC suburbs have shown that, with power levels as low as 100 watts, BPL communications can be completely disrupted.

Rather than acting as an arbiter for competing interests, the FCC is unfortunately acting as a champion for BPL technology. The FCC is not acting with the proper diligence in this matter, and is letting business interests get ahead of sound technical decisions.

Referring to comments made by Chairman Powell and Commissioners Abernathy, Adelstein, Copps and Martin (RE: "Inquiry Regarding Carrier Current Systems, including Broadband over Power Line Systems" ET Docket No. 03-XXX, Notice of Inquiry adopted April 23, 2003, ET Docket No. 03-104), the FCC appears to be championing this technology, rather than examining its implications in a scientific manner.

Quoting Chairman Powell,

"Today's notice explores ways to update our rules to ensure that regulatory uncertainty does not in any way hinder the deployment of these new services. Ultimately it will be for the marketplace to decide how broadband over power lines fits into tomorrow's competitive telecommunications landscape, but we welcome them to the frontier of the digital migration."

Nowhere in Chairman Powell's statement does he indicate (should interference to licensed services exist) that the FCC would consider abandoning support for BPL. If the marketplace and financial interests decide how much interference any other licensed service must tolerate, no wireless user will be immune from disruptions in the future. Consider, for example, if BPL were to operate in the 88-108 MHz spectrum (the FM broadcast band) or 54-72 MHz (the lower part of the broadcast television band). One could easily imagine the outrage from the broadcast industry about interference to their LICENSED radio services!

At a speech a few months ago, Commissioner Abernathy was quoted as saying that BPL is "broadband Nirvana," a statement that she only recently retracted when questioned in a public forum by an amateur radio organization. BPL is not "Nirvana." It is an ill-conceived communications medium that is not robust enough to effectively compete with other broadband services such as DSL, cable modems, satellite and licensed wireless services. BPL is the communications equivalent of shipping gasoline through sewer systems rather than through pipelines. Just because sewer lines are able to transport fluids and are commonly found throughout the country doesn't mean that they're suitable for transporting hazardous and flammable liquids! Similarly, BPL is a source of pollution in the HF spectrum and an unnecessary hazard to HF communications.

Only Commissioner Adelstein, in his comments on the same Notice of Inquiry (NOI), seemed to understand the possible technical implications of BPL technology on HF communications. In his comments regarding the NOI inquiry he said,

"Thus, I believe that while we must be mindful of harmful interference, we cannot let unsupported claims stand in the way of such an innovation as BPL systems. Provided that the engineering bears out, I believe that we need to push the boundaries to accommodate new technologies... However, the technology is still in the earliest stages of development and testing, and the NOI was drafted with the sole focus of addressing the technical issues associated with BPL systems, not the policy ones. This item does not seem to be the right place to tackle these important questions. I will support revisiting these non-technical issues once the Commission gets a better understanding of the technology and associated deployment of BPL systems."

Amateur radio is a licensed radio service that should rightly be treated as a national asset in times of crisis and as an incubator for technological innovations. BPL is an unlicensed networking technology threatening licensed radio services operating in the HF spectrum. It is not robust enough to survive interference from

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legally operated equipment and, if fully deployed, would end up providing unreliable service to its subscribers. I am asking you to challenge the FCC commissioners and have them explain their actions and comments regarding BPL. Also, I am asking for your support in helping to keep BPL from interfering with HF communications now and in the future.

Respectfully,
[Your name]
Amateur Radio Operator, [Your call sign]

It is important that we all do our part to preserve our use of Amateur Radio and the frequency spectrum we have been entrusted with. The letter can be cut and pasted to your word processing program so that our Congressional representatives can be notified about this important matter.

Please take a few minutes and send out this letter to our states congressional representatives and our senators.

..... N9SIU



MERRY CHRISTMAS

AND

HAPPY NEW YEAR

FROM

M.A.R.C.

